half an inch or so. And again, when the perinaeum was very deep, and the point of the knife was in the prostate, the tips of all the fingers, and that of the thumb, would be in a manner concentrated round the posterior part of the handle, the only part which was external to the wound. Even here, however, the downward aspect of the palm gave that firmness and precision of movement which characterized all that Mr. Liston's right hand did in this operation.

It may be thought by many that I have raised a point of very trivial importance, but such is not my view. Experience has taught me, in a variety of ways, that to those interested in the subject of lithotomy, there is not a single feature regarding it that does not demand the most careful consideration, and the method of holding the knife and the hand seem to me almost of vital importance. Were a great painter represented on canvass holding his brush over-hand, the attitude would excite ridicule, but could do no special harm; but when a great surgeon has his hand and knife erroneously represented, the mischief may be serious. Supposing that in thirty years all Mr. Liston's pupils may have ceased to teach; supposing, as is possible, that in the same lapse of time there is no living witness of Mr. Liston's operation; and supposing, too, that the majority of the works of our present authors should still lead the practice of surgery at that time, the hand and knife might come to be held by future practitioners as if in imitation of one of the most dexterous and successful of lithotomists.

It is the beauty and in some respects the claim to superiority of our modern surgical publications that the embellishments and illustrations by means of woodcuts are superior to the productions of our predecessors. The works of Scultetus, Paré, and others, may raise a doubt on this subject, but as to the value of illustrations there can be none. The modern practice of inserting woodcuts in conjunction with the type is truly admirable, and it were a pity that from oversight or otherwise an improper impression should thus be given on a point so important as that to which this paper pertains. Even in so old a work as that of Tolet, published at Paris in 1581, on Lithotomy, the hand is represented holding the knife, with palm and edge directed downwards.

I confess myself an admirer, I may say an imitator, of Mr. Liston in regard to this operation. I believe that it was in some respects unique, and believing, too, that it is largely followed in the present day, and likely to be a standard proceeding, I have thought it right to put my views on the subject in such a way as best to meet the notice of the profession.

Trusting that this very important and delicate surgical question may not be deemed unworthy the notice of this Society, I respectfully take this method of giving it that publicity which in my opinion it deserves.

George-street, Hanover-square, 1856.

ON THE INFLUENCE OF ARTIFICIAL HEAT ON THE ATMOSPHERE OF LONDON.

By WILLIAM D. CHOWNE, M.D.,
PHYSICIAN TO CHARING-CROSS HOSPITAL.

THE well-known effects of clouds, in reflecting back the heat radiated to them from the earth and terrestrial objects, induced me to make some experiments on the subject, the details of which might, I considered, prove interesting to the profession. These experiments were made at a time when the agents for producing artificial heat are most generally in operation—namely, in winter months. It might be easily imagined that the vast amount of heat generated in the metropolis, and in all large manufacturing towns, by the use of furnaces, by domestic fires, by gas-light, &c., must exercise a considerable effect on the temperature of the atmosphere of these localities.

During the year 1850, in order to ascertain the temperature of the London atmosphere on fine clear nights when compared with that on moderately cloudy nights, as well as on *intensely dark* and clouded nights, when radiation would be most obstructed, a cylinder of zinc-plate, three inches in diameter and twelve inches long, was inserted vertically in the earth, and a thermometer was placed within it. The upper orifice of the cylinder, being just level with the ground, was covered by a

piece of zinc plate, merely laid upon it; the other extremity of the cylinder was closed by a disc of the same metal, and soldered. At the same time, another thermometer was suspended, nearly over the cylinder, at the height of about ten inches from the ground, and in the free air. The state of the sky was carefully noted during all the experiments.

By the annexed Table, in which the results of several of the experiments are recorded, it will be seen that, not only the same general fluctuations of temperature occurred, as have been observed, within certain limits, by Mr. Wilson,* Mr. Six,† Dr. Wells, Melloni,‡ and others, but that, on intensely cloudy nights, the quantity of heat reflected back by the clouds was sufficient to raise the temperature of the exposed thermometer to a higher degree than that indicated by the thermometer which was in the cylinder within the ground, and partaking directly of the earth's warmth. These experiments were made in one of the gardens at the back of Connaught-place West, Hyde-park.

Comparative Temperatures during the Night, of Thermometers Sheltered from the Sky, and of others Exposed to it:—

1850.	Time at which the Observations were made.	Barometer.	Sky.	Stars.	No. of Observations made.	Temperature Highest.	
						Sheltered. Mean Excess.	Exposed. Mean Excess.
Nov. 17	P. M. 7 to 12	30.0	Light clouds	Few	5	4.6	0
23, 24	10 to 12	29.5	No clouds	Many	4	6.5	...
26	9 to 11	29.4	Light clouds	Few	2	4.0	...
27, 28, 29	9 to 12	30.2	Bright & clear	Numerous	7	9.5	...
Dec. 1, 2	8 to 12	30.2	Cloudy	None	6	3.8	...
4	{ 10 } { 11 }	30.1	{ Very cloudy Quite cloudy	{ None None	{ 2 2	{ 1.5 Equal	{ ... ...
6	9 to 12	30.4	Very cloudy	None	2	1.0	...
10	{ 8 } { 9.30 }	30.1	{ Densely cloudy Quite cloudy	{ None None	{ 2 2	{ ... Equal	{ 1.5 ...
11	8	30.0	Quite cloudy	None	1	...	0.5
13	8.30	29.8	Quite cloudy	None	1	Equal	...
	9.30	29.7	Densely cloudy	None	1	...	1.0
	12	29.8	Densely cloudy	None	1	...	2.0

The mean temperature of the air in the garden was 44° at the times of making the observations.

Thus it is satisfactorily shown that on the *moderately* cloudy nights, when compared with those of the three *fine* nights, (namely, the 27th, 28th, and 29th of November,) the thermometers indicated the presence of reflected heat in a degree not differing from what might have occurred in the open country; but that on the *densely cloudy* nights they indicated a degree of heat, sensibly above what they could have derived from the earth's surface.

Other thermometers were suspended at the same time in pairs. One of each pair was placed in a situation where it was more or less sheltered from the sky; the other was placed about two feet from it, and at the same height from the ground, but fully exposed to the sky. The result was, that on the intensely dark and cloudy nights the temperature of the exposed thermometers attained a higher degree than that attained by those that were sheltered. This occurred on the nights when it was found that the exposed thermometer already spoken of, as being suspended near the ground, attained a higher temperature than that in the cylinder *within* the ground.

Hence, although in *ordinary* circumstances the air under a shed is during the night warmer than the unsheltered air, yet on extremely overcast nights, the relative temperatures are reversed, and are rendered analogous to those which exist on sunny days, when thermometers exposed to the sun's rays indicate a higher temperature than those sheltered from them.

Dr. Wells, when he had changed the place of conducting his experiments on dew from the open country to Lincoln's-inn-fields, considered that the surrounding houses had an influence on his thermometers. He says—"In situations where large masses of bare solid matter exist.....a greater heat will be received by the exposed body than what is radiated by itself. For example, it seemed certain to me that the houses surrounding Lincoln's-inn-fields had an influence upon my thermometers during my experiments there at night, beyond what arose from their

* Edinburgh Philosophical Transactions, vol. i., p. 170.

† Philosophical Transactions, vol. lxxiv., part ii., p. 430. 1784. And Six's Posthumous Works. Canterbury, 1794.

‡ On the Nocturnal Cooling of Bodies exposed to a Free Atmosphere. Scientific Memoirs, selected, vol. v., p. 543. 1847.

merely returning a quantity of heat equivalent to that which they received from the surface of the garden."*

It does not appear that Dr. Wells attributed the various effects produced on his thermometers to any influence of artificial heat translated by processes of combustion from the earth to the clouds, and reflected by them back again. Indeed, at the time when his experiments were made, two great sources of heat now in operation, the making and the burning of gas, had but a very limited existence. It may be likewise remarked, that the consumption of gas for lights has added almost incalculably to the quantity of heat communicated to the open air.

The experiments I have detailed were repeated on nights more or less foggy, and the results (which, however, are not included in the "Table") were in accordance with what has been observed by the authorities already quoted—namely, that fog did not exercise the same power as clouds, in reflecting back the heat emitted by radiation or otherwise from the earth.

An important inference appears to be deducible from the fact, that so large a body of artificial heat can be thrown back upon terrestrial objects, a probable consequence being to augment the atmospheric capacity for holding aqueous vapours, from whatever sources they may come; and this circumstance renders the subject one of immediate interest in regard to the atmosphere, not only in its physical conditions generally, but also in its relations to our sewers and the openings from them at the gratings in the streets.

Although in a room where gas is burning, the hygrometer (Mason's) indicates a decrease of the difference of temperature between the dry bulb and the wet one, owing to the quantity of vapour generated by the process of combustion, yet the fact of such formation in the open air would but slightly interfere with the aggregate results of combustion going on by other means at the same time.

The quantity of aqueous vapour supplied by the surface evaporation of the streets of London, except when they are wet with rain, or from other causes, is extremely small, and the same might be said of that from the surface of the Thames when compared with the vast extent of the metropolis. The Thames, moreover, is remote from the great mass of the populous districts; hence, on calm, still nights, when there is scarcely wind enough to move our atmosphere along, and to bring us a change; and when, moreover, there is the absence of rain, any increase of temperature, such as the experiments I have described show to take place, must have a powerful influence, not only on all the pneumatic relations existing between the open atmosphere and the atmospheres of dwelling-houses and of sewers,—and, indeed, of all places, but also on what might be regarded as the chemical relations affecting all dead and decomposing organized animal matters.

If we consider for a moment the influence of these conditions, we can scarcely doubt that there is produced in the atmosphere an increased avidity for that very element which in damp, noisome localities, and over damp, corrupting masses of matter, must at all times abound.

As the monster source of impure exhalations, we must naturally look to those underground regions of foul vapours, the common sewers. It is not my intention, however, even to attempt to state what may be the pneumatic effects of changes of temperature on the atmosphere, either by day or by night. The movements of the air, and of the vapours within the sewers, are under the influence of so many agencies that no safe inferences can be drawn, especially so long as the existing freedom of intercommunication between the streets, the sewers, the drains, and our dwelling-houses, is permitted to continue.

The seemingly capricious local outbreaks and aggravations of disease which occasionally happen, must be presumed to have, in different cases, different local causes, as bad water in one place, unwholesome food in another, impure air elsewhere, and so on; and it does not appear to be an unreasonable supposition that they may sometimes arise from particular sewers happening to contain, for the time being, matters peculiarly corrupt, the vapours from which are thrown up into the atmosphere of the streets, through the open gratings, and into our dwelling-houses, by means of the house-drains.

A striking example of the ill-effects of accumulations in particular sewers was exemplified in the instance of a man, whose business was to work in them, and who, "the moment he arrived at the effluvia of the deposit, was obliged to leave it immediately, and go home, where he was ill of fever for a month." This case is cited in the Minutes of Information collected with reference to works for the removal of soil-water, or drainage, &c., by the General Board of Health, (p. 59.)

In an instance where it became known that means were in the course of being taken to remove a similar accumulation, by flushing, during the presence of cholera, "certain parishes petitioned against the process, ascribing to it the extension of the pestilence."—(Ibid, p. 59.)

I have sometimes seen amongst poor patients who have been subject to the effluvia from sewers, persons depressed in a most peculiar way, not by low fever as it is ordinarily seen, nor by debility contingent upon any specific disease, but by a depression which is, nevertheless, in all cases, difficult to conquer, and in some proving fatal.

Extremely melancholy cases of a similar kind I have also seen in lying-in women, in the vicinity of whose abode a common sewer has happened to be open for repair, either in the same, or in an adjoining street. I have also seen, where labour has taken place under such circumstances, prostration of strength to such a degree, that neither the involuntary nor the voluntary muscular actions could proceed. There was depression also of the mental faculties, such as I have never seen under other circumstances, and there did not appear to be any other probable cause for these symptoms than the open sewers.

It appears to me to be a fair subject for consideration whether during the nights on which dense clouds occasion the increase of temperature to which this paper refers, impure vapours would be more readily diffused through the atmosphere, both of the streets and of dwellings—a view which some analogous facts seem to favour. It is certainly the case that in some instances cholera has been most prevalent when the barometer has been high; yet these may have been mere coincidences.*

So long since as 1832, when the cholera made its frightful attack upon London, Mr. Bishop was so fully of opinion that foul emanations from the sewers were exercising a baneful influence, that a plan for preventing such emanations was devised by him, and received great attention.

If we would transfer our thoughts to means for preventing the diffusion of the effluvia of sewers and other unwholesome vapours through our atmosphere, under the circumstances I have detailed, we find that they merge in the general question of means and ends, connected with sanitary improvement. Meteorological and physical phenomena in the grand operations of Nature we cannot control, whether they affect us for good or for ill; but what belongs to the class of artificial operations might hereafter find a remedy. There is, however, very much to be changed before that can be brought about.

It must, I think, ultimately be admitted by everyone, although opinions differ on the subject at present, that openings into the streets are not fit places of escape for the subterranean exhalations of sewers, which, besides generating at all times enormous quantities of unwholesome gases, serve as channels which conduct them to whatever openings of escape they may be able to find. They, moreover, not only contribute the gases and humid products evolved within themselves, but give passage to foul air which enters them at their terminal extremities, where the refuse is deposited, and they are often as truly air-ducts from the lower to the higher levels, as they are water-ducts from the higher to the lower: thus, the place of exit for the liquid and solid refuse becomes the place of entrance for air loaded with the exhalations of the deposits over which they pass. Although the sewers which finally open on the banks of the Thames are closed when the tide has ebbed below a certain level, yet the use of means for that purpose constitutes an exception to the rule as regards the terminations of sewers generally, and moreover, the plans adopted are not perfect.

A palpable example of the effects of a foul atmosphere at the terminal opening of a sewer is quoted in the first Report of the Metropolitan Commission. The Report cites as a most striking illustration "of the influence of ill-contrived sewerage on the origination of cholera, supposing the epidemic once prevailing," a catastrophe which occurred at Liverpool.

"One morning, it was discovered that several men on board a vessel lying in one of the docks at Liverpool had been seized with cholera during the preceding night. The men were sent to hospitals, and the vessel having been warped into the river, another ship, with a healthy crew, took up her position. The next morning, all the hands on board were ill with cholera; and on examining the dock, it was found that a large sewer discharged its contents under the spot where the ship was placed."

There is, however, a worse process constantly in operation than the discharge of bad vapours of the sewers into the open

* Dr. Routh, in a paper read before the Medical Society of London, says "The state of the atmosphere during the epidemics of 1832, 1849, and 1853, was particularly dry, with a high barometer."—THE LANCET, vol. i, 1856, p. 344.

air, either by their terminal extremities, or by the gully openings in the streets; and that process is the transmission of the atmosphere of the sewers by means of the house-drains into our houses, while, in very many instances, the gully-openings are places of entrance of air to the sewers, instead of places of exit. Although connecting dwelling-houses with common sewers by means of drains is indispensable, as a part of the present plan of sewerage, yet it is necessary to remember how very analogous that process is to the arrangements that are made for the convenience of lighting our houses with gas—that is to say, bringing the gas into the house—technically called “laying the gas on to the house;” so by establishing a communication with the common sewers, we may be said to be laying on the foul air of these channels to the house, and, indeed, we actually do so, and become worse off than ever, in the absence of efficient means for what we may call “shutting off the sewers.”

Mr. John Phillips, C.E., the surveyor of the Westminster district, says:—“In going along the sewers.....the light which I had in my hand I have placed immediately by the side of, and into the house-drains, and I found almost invariably the flare carried into the mouths of the drains, so that there must have been direct currents from the sewers through the house-drains into the houses themselves.” Mr. J. Phillips adds—“I rarely met with any instances where there was not a current from the sewer into the house-drain, and also from the sewer through a large number of the gully-drains into the streets.”*

Great engineering talent has been displayed in the construction of sewers and drains, so far as regards the material to be employed, the form of the channel, the best modes of junction between converging portions of the channel, the quantity of fall required, and, indeed, to every point of the subject in which hydraulics are concerned; but it is not less necessary that the subject should be studied, and that efficient arrangements should be made, with a view to another branch of natural philosophy—pneumatics; for, notwithstanding the great attention which has been given to the subject, as regards its hydraulic relations, scarcely any, until lately, has been given to the pneumatic relations, and that little has been given chiefly to particular difficulties, and to special circumstances. The investigations of chemists have fully demonstrated the noxious qualities of the vapours, and of the gases which the sewers contain; and, I need not say, that on what might be called the chemistry of the subject, valuable communications were made to the Medical Society of London, in papers contributed by Dr. Routh, in the course of the last session. Another very zealous fellow of that Society, Dr. Snow, who has devoted himself so earnestly to scientific investigations relating to several important subjects connected with sewers, has frequently given the result of his valuable experience.

With regard to the temperature of the sewers, Mr. Hosking, Professor of the Principles and Practice of Architecture at King's College, says, in his excellent book, which is full of interesting matter in relation to sanitary objects—(under the title of “Healthy Homes”†)—“It is a fact, well known to all persons conversant with the subject, that the temperature in those of the sewers into which many house-drains fall, is at all times much higher than in the open air—generally, indeed, from thirty to fifty per cent.” Judging from the context of Professor Hosking's remark in the work alluded to, I should infer that this high temperature is, in part, attributed to the quantities of hot water which are discharged into the sewers. There are times when the temperature within the sewers is lower than it is without—as, for example, on hot summer days; but I believe there are not any systematic records of what the differences are. I had not any opportunity of ascertaining the temperature within the sewers on the intensely cloudy nights to which the experiments detailed in this paper refer; the inference, however, would be, that a strong analogy would be found in the results.

Although relative differences of temperature must necessarily exercise great influence in all the pneumatic phenomena to which the sewers are liable, yet there has not been, so far as I am aware, any systematic notice taken of the relative temperatures of the air within the sewers and the external air; indeed, the chief attention appears to have been directed to getting rid of the liquids and solids, without any systematic consideration of what to do with the vapours. It may be alleged that if the liquids and solids are removed, there need not be any care about the exhalations; but that we know can be done only in a limited degree.

Of the hygrometric condition of the sewers, relatively either to the free atmosphere, or to the atmosphere of our dwelling-houses under the changes of temperature, and of other conditions which are constantly taking place, there are not, I believe, any records; yet these changes cannot be without effect on the greater or less facility with which the humid exhalations of the sewers become mixed with the external air.*

What consideration has been given to plans for dealing with the vapours of the sewers appears to have been thus far abortive. The Act of Parliament “For the Better Local Management of the Metropolis” contains a clause setting forth, that “Every district and vestry shall, by providing traps or other coverings, or by ventilation, or by such other ways and means as shall be practicable for that purpose, prevent the effluvia from exhaling through the gully-gratings, or other openings of sewers or other places within the district or parish.” The proposition that “traps or other coverings should be provided to prevent the effluvia from exhaling through the gully-holes or gratings or other openings of sewers,” presents a remarkable example of dealing with a great pneumatic difficulty as if it were a mere local or accidental casualty. There is, moreover, in the proposition this obvious fallacy, that the closing of the openings of one street, must increase the nuisance in another; besides which air will not be so pent up, and to proceed otherwise than on a partial and small scale, would be but to ensure burstings and explosions of the most formidable kind.

The circumstances under which currents of air take place, and the *direction* of their movements, are, I scarcely need say, liable at all times to be affected by influences which are difficult of detection, even in instances much less complicated than they necessarily are in the channels now adverted to; and I shall at present restrict myself to stating what directions they took in the course of some investigations I have made, without offering any explanation of the causes of that direction in the particular cases.

These investigations had for their object to ascertain, with regard to the gully-openings, whether the atmosphere of the streets was passing into the sewers, or whether that of the sewers was passing into the streets; and with regard to the house-drains, whether the atmosphere of the sewers did or did not pass up through the drains to the interiors of the houses.

I have, by means of an anemometer, (which I had constructed for the purpose of detecting the direction of currents of air under various circumstances,) found that in some gully-openings the direction of the current was upward into the street, while in others it was downward, even where the openings communicated with the same sewer.

There are three main sewers north of the Thames, which extend from Hampstead to the Thames—the Fleet sewer, the Ranelagh sewer, and the King's Scholars' Pond sewer; the latter is what is called a closed sewer, from Bellsizes-lane, (between Hampstead and the Finchley-road,† to Lupus-street, near Vauxhall-bridge, and therefore was selected for observations.

These observations were made in several of the streets under which the King's Scholars' Pond sewer runs. They were commenced at the lowest level, and terminated at nearly the highest, in the following order, and with the following results:

	Openings tried.	Current up in	Down in
1. In Lupus-street	7	3	4
2. Stanley-street	6	6	0
3. Pimlico-road	3	1	2
4. Charlotte-st., Pimlico	1	1	0
5. White Horse-st., Piccadilly	2	2	0
6. Curzon-street	1	1	0
7. Baker-street	4	3	1
8. Dorset-square	2	2	0
9. Dorset-place	2	2	0
10. Avenue-road	13	3	10

These are results which cannot be fully explained without a better knowledge than we have at present the means of obtaining, as to the pneumatic influences which particular parts of the sewer are under at the time of making the trial.‡

With regard to dwelling-houses, I have, by means of the

* In a scientific paper “On the Importance of Well-constructed Instruments in Meteorological Research,” Mr. Jabez Hogg has given a concise and instructive account of a set of instruments well calculated “to do justice to the subject.”—THE LANCET, vol. ii. 1856, p. 189.

† The Finchley-road is, according to Ordnance data, 166·7 feet above the Thames. Lupus-street is only 2·7. These observations were all made on the same evening between six and nine o'clock P.M. The night was fine, and with extremely little wind; the thermometer in the air, fifty-four degrees.

‡ Two of the trials in the Avenue-road were near the Swiss Cottage, the highest part of the road, and the current was up in both.

* First Report of the Metropolitan Sanitary Commission, p. 48.

† Page 207.

anemometer, ascertained in very many instances that great quantities of foul air passed from the sewers to their interiors, steadily and constantly contaminating the atmosphere of the house, although frequently the admitted effluvia, owing to its being diluted by the atmosphere of the house, does not betray its presence by a strong odour. This ingress of foul air takes place in almost every house that I have tried where there is not complete occlusion as by means of a body of water interposed between the interior of the house and the sewer. The bell trap and the bent tube both are successful when attended to; but the flap occasionally suspended at the orifice of house-drains at their junction with the sewer is useless, or nearly useless, so far as the occlusion of foul air is concerned. The sink-pipes and area-drains are very common places of escape for foul air.

In conclusion, I am desirous of saying, that the object of this paper has been to communicate to the profession the *results* of the experiments detailed in the early part of it, and that the subjects afterwards introduced have been referred to merely as presenting instances in which the artificial heat reflected back upon the earth must exercise an influence over the various phenomena to which the atmosphere is liable. It must be obvious, without entering into explanations, that the bearing of these experiments is to show that the condition of the atmosphere, produced by the various sources of artificial heat referred to, cannot fail to have a powerful influence, not only on the sanitary state of the metropolis, but also of all large manufacturing towns.

Connaught-place West, Hyde-park, 1856.

A Mirror

OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.* lib. 14. Proœmium.

CASES OF RESECTION OF JOINTS—(Concluded.)

ST. GEORGE'S HOSPITAL	{	<i>Excision of Hip-joint</i> ...	MR. HAWKINS.
MIDDLESEX HOSPITAL	{	„ <i>Hip-joint</i> ...	MR. SHAW.
	{	„ <i>Hip-joint</i> ...	„
KING'S COLLEGE	{	„ <i>Wrist-joint</i> ...	MR. FERGUSSON.
	{	„ <i>Wrist-joint</i> ...	„

THE attention of the profession has been of late years directed to excision of the hip-joint by the writings and published cases of several surgeons, amongst whom we may mention Mr. Fergusson, Mr. Haynes Walton, and Mr. H. Smith. It was first performed by Mr. Anthony White, in 1818, with success, and revived by Mr. Fergusson in 1845. To the last distinguished surgeon, then, belongs the merit of reviving two of the most important conservative operations of modern times—namely, resection of the knee and the hip, which, had they alone been all that he had done for surgical science, would in themselves have been quite sufficient to entitle him to the gratitude and thanks of the profession. The removal of the head of the femur has now been accomplished many times, and with a very fair share of success, but not by any means equal to that of the knee joint. It was looked upon with distrust by many surgeons, and was at one period very warmly discussed. The opposition which was manifested against it has now passed away, and side by side with the knee-joint it ranks as a recognised procedure in certain diseased conditions. Of examples of the operation in former Mirrors, we may allude to cases under Mr. Erichsen at University College Hospital, (THE LANCET, vol. i. 1852, p. 62;) Mr. Stanley, at St. Bartholomew's,

(Ibid. p. 172, and vol. i. 1854, p. 61;) Mr. Cæsar Hawkins, at St. George's, (vol. i. 1852, p. 219;) and Mr. Fergusson, at King's College, (vol. i. 1854, p. 444.) The case of Mr. Hawkins mentioned in our table, which was kindly furnished us by Mr. Holmes, the surgical registrar of St. George's, already appears in the volume we have just mentioned.

The cases which appear to be the only ones suitable for this operation are those in which the head of the bone has been lying out of its socket for some time, keeping up constant irritation and discharge, with no possibility of alleviation by any means whatsoever, whether local or constitutional, providing, as Mr. Walton and others have pointed out, that the acetabulum and bones of the pelvis are free from active disease, and that the internal viscera, especially the lungs, are free from tuberculous deposits. Such were the cases in which Mr. Shaw successfully removed the caput femoris. The implication of the acetabulum before dislocation is an argument in favour of waiting till the head of the bone has formed a new bed for itself, which will thus allow time for a certain amount of reparative action to be displayed in the filling up of the cotyloid cavity by a firm fibrous substance, as existed to a slight extent in Mr. Shaw's second case. The acetabulum assumes a somewhat healthy condition, when the femur has been dislocated for a time, and lying, as is mostly always the case, in a distinct suppurating sac formed around itself. The disease may, however, be solely confined to the head of the bone, without the ilium being in any way implicated. If the operation alone is considered, it is one of the easiest in the great range of surgery. In eight cases seen by Mr. Walton, not a ligature was required, and very little blood was lost. This quite accords with what we have witnessed ourselves.

The intention of the operation, as we have heard Mr. Fergusson remark on a former occasion, is not only to arrest the disease, and thereby save the patient from a lingering death, but to do so with the prospect of avoiding the inconvenience of ankylosis; for it must not be forgotten, that however much we seek for this condition in the knee, it would really prove a very awkward matter in the hip. In the two cases under Mr. Shaw, a good deal of mobility was obtained, and an excellent false joint had evidently formed in the first case, as evinced by the patient's walking about with the greatest facility. These conditions are likely to be obtained in the second case also, for although the patient is still in bed, she is able to move the thigh without assistance, and in the course of time will make an equally good recovery as in the first case. As contrasted with the knee-joint, there is far more efficient support to be expected from a new joint formed on the broad and resisting surface of the ilium than could ever be anticipated from an excised and partly ankylosed knee.

MIDDLESEX HOSPITAL.

EXCISION OF THE HEAD OF THE FEMUR, IN A LAD AGED SEVENTEEN, WITH DISLOCATION AND PROTRUSION OF THE BONE, THROUGH A FISTULOUS OPENING, DEPENDING UPON RHEUMATIC INFLAMMATION EIGHT MONTHS BEFORE; RECOVERY, WITH A MOST USEFUL LIMB.

(Under the care of Mr. SHAW.)

R. B—, male, aged seventeen, admitted to Forbes ward, August 27th, 1855. Has had good health till six weeks ago, when he was seized with pains in the joints of the lower extremities, preceded by rigors and accompanied by considerable fever; the knees were much swollen, and the attack was evidently of rheumatic character. The pain subsided after the first week, with the exception of that in the right hip-joint, in which the pain increased and the swelling became more apparent, gradually becoming worse till the date above-mentioned. When admitted, pain and swelling of all the other joints had quite disappeared; the right hip and surrounding parts were much swollen, the joint itself quite stiff, the pain *excruciating*, and the tenderness very great. He lay with the thigh partly flexed upon the pelvis, and thrown across the opposite limb. After admission, the swelling slowly increased, the fluctuation became distinct over the joint; and, two months subsequently, the abscess broke spontaneously, and a free discharge of pus followed; the quantity, however, diminished in three weeks, and the pain subsided, and his general health began to improve. At the end of November he was able to walk about on crutches and suffered but little constitutional disturbance. The limb was, however, shortened upwards of four inches, and he had no motion in the hip-joint.

In the early part of January he had rather a sudden return of pain in the part; he then took to his bed again, and conti-